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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/941,329
Filing Date: August 29, 2001
Appellant(s): BUCKLEY ET AL.

Hunter Webb
For Appellant

EXAMINER'S ANSWER

This Examiner's Answer is identical to the Examiner's Answer mailed on November 30, 2006 except the Powderly et al. (U.S. Patent Number 6,560,641) reference has been added to the Evidence Relied Upon section of the Answer.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

a) Zhu et al. (U.S. Patent Number 6,691,154, hereinafter "Zhu")

b) Paroz et al. (U.S. Patent Number 6587125, hereinafter "Paroz")

c) Chang (U.S. Patent Number 5,444,850)

d) Sarin et al. ("Computer-based real-time conferencing systems", hereinafter "Sarin")

e) Isfeld et al. (U.S. Patent Number 5,483,640, hereinafter "Isfeld")

f) Thompson et al. (U.S. Patent Application Publication Number 2002/0075303, hereinafter "Thompson")

g) Partridge et al. (U.S. Patent Number 6,160,819; hereinafter "Partridge")

h) Powderly et al. (U.S. Patent Number 6,560,641, hereinafter "Powderly")

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

A) **Claims 1-26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement.** The claim(s) contains subject matter which was not described in

the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In particular Applicant failed to disclose how both the hardware and software layer can be accessed *without the requirement for a signal device transmitter*. Simply put, it would be impossible to access a device remotely without the use of a signal device transmitter because otherwise there would be no exchange of data at all. Thus, Applicant failed to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Note Applicant links the two limitations 1) an additional hardware dongle and 2) a signal device transmitter with the conjunction OR. This 112 1st ¶ rejection and the one below assumes that the latter limitation is selected such that the claim language recites *wherein both the hardware and software layer can be accessed without the requirement for a signal device transmitter*.

B) **Claims 1-26 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.** The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In particular Applicant failed to disclose how both the hardware and software layer can be accessed *without the requirement for a signal device transmitter*. Applicant only disclosed embodiments where a signal device transmitter is used to access both the hardware and software layers of a console device (see inter alia, the server of Figure 1 which is used to send signals to the consol device). Thus, Applicant failed described in the specification in such a way

as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In the interest of compact prosecution Examiner has presumed that the limitation "wherein both the hardware and software layer can be accessed without the requirement for a signal device transmitter" should be replaced with the limitation "wherein both the hardware and software layer can be accessed without the requirement for **an additional** signal device transmitter" since Applicant has support for such a limitation as found in the specification on pg 16, lines 5-7.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

C) Claims 1, 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhu et al. (U.S. Patent Number 6,691,154, hereinafter "Zhu") and Chang (U.S. Patent Number 5,444,850) and Sarin et al. ("Computer-based real-time conferencing systems", hereinafter "Sarin").

In considering claims 1, 4, and 5 Zhu discloses a method for managing a plurality of console devices over a network, comprising the steps of:

- providing a plurality of console devices interconnected over a hardwired network (Col 2, lines 63-65);
- checking an availability of one of the console devices (Col 4, lines 1-6);
- requesting a shared session of the checked console device (Col 4, lines 5 -6);
- starting the shared session (Col 3, lines 55-58) via an addressable connection (Col 3, lines 54-55);
- accessing the console device on a peer to peer basis over the hardwired network during the shared session (Col 5, lines 42-47).
- performing system console access of the console device (Col 5, lines 42-47),
- wherein the software layer of the console device can be accessed (Col 5, lines 42-47).

In considering accessing the hardware layer of the console device without the requirement for an additional hardware dongle or signal device transmitter, Zhu fails to disclose a user is capable of accessing the hardware layer of a console device. However, it was well known in the art at the time of the invention to remotely control both the hardware and software layers of console device, as evidenced by Chang. In an analogous art, Chang discloses remotely controlling a console device where both the hardware (e.g. BIOS access or remotely sending a signal to reboot the system) and software layers (e.g. OS files) of the console device can be accessed during device failure (see inter alia Chang Col 2, lines 43-55 and 60-67). Chang's system provides remote access through software incorporated into a system's firmware as opposed to software running on top of an operating system so that the system can be accessed even when the operating system is unable to load (see inter alia Col 4, lines 10-25). Further

since Chang's remote access functionality is performed through software stored in the device's firmware the system does not require an additional hardware dongle or signal device transmitter for the remote access. In addition Chang disclosed that such device hardware layer access is beneficial since system administrators can still remotely control and debug the system in the event of a system crash (Chang Col 3, lines 12-50). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the firmware remote control functionally disclosed by Chang within Zhu' system so administrators or other users can still remotely access and debug console devices even when the operating system of a console device is unavailable or has failed (Chang Col 3, lines 12-50).

In considering the creation of shared remote control sessions, while Zhu discloses a method for requesting a shared session of the checked console device, Zhu fails to disclose requesting a shared session of the checked console device from *a current user* of the console device. However, it was widely known in the art that there are various methods for creating collaborative-shared sessions as evidenced by Sarin. Sarin discloses a collaboration system where users request to join a collaborative-shared session and the request is approved or denied by a participant in the currently in the session (Sarin pg 38, Col 1, ¶ 1). Thus, given the teachings of Sarin, it would have been obvious to one of ordinary skill in the art at the time of the invention to design the Zhu system to allow a user already connected to a console device to accept or reject another user's request for a shared session, in order to allow a user already connected to a console device to restrict access to the shared session on a case by case basis.

In considering claim 3, Zhu discloses the method of claim 1, where the shared session is started from a remote location (Col 2, lines 19-21).

In considering claim 6, Zhu discloses the method of claim 7 wherein the console devices are computer systems (Col 2, lines 19-21).

D) Claims 2 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhu et al. (U.S. Patent Number 6,691,154, hereinafter "Zhu") and Chang (U.S. Patent Number 5,444,850)and Isfeld et al. (U.S. Patent Number 5,483,640, hereinafter "Isfeld") and Sarin et al. ("Computer-based real-time conferencing systems", hereinafter "Sarin").

In considering claims 2 and 7-8, Zhu discloses a method for managing a plurality of console devices over a network, comprising the steps of:

- providing a plurality of console devices interconnected over a network (Col 2, lines 63-65);
- checking an availability of one of the console devices (Col 4, lines 1-6);
- requesting a shared session of the checked console device (Col 4, lines 5 -6);
- starting the shared session (Col 3, lines 55-58) via an addressable connection (Col 3, lines 54-55);
- accessing the console device on a peer to peer basis over the network during the shared session (Col 5, lines 42-47).
- performing system console access of the console device (Col 5, lines 42-47).
- wherein the software layer of the console device can be accessed (Col 5, lines 42-47).

In considering accessing the hardware layer of the console device without the requirement for an additional hardware dongle or signal device transmitter, Zhu fails to disclose

a user is capable of accessing the hardware layer of a console device. However, it was well known in the art at the time of the invention to remotely control both the hardware and software layers of console device, as evidenced by Chang. In an analogous art, Chang discloses remotely controlling a console device where both the hardware (e.g. BIOS access or remotely sending a signal to reboot the system) and software layers (e.g. OS files) of the console device can be accessed during device failure (see inter alia Chang Col 2, lines 43-55 and 60-67). Chang's system provides remote access through software incorporated into a system's firmware as opposed to software running on top of an operating system so that the system can be accessed even when the operating system is unable to load (see inter alia Col 4, lines 10-25). Further since Chang's remote access functionality is performed through software stored in the device's firmware the system does not require an additional hardware dongle or signal device transmitter for the remote access. In addition Chang disclosed that such device hardware layer access is beneficial since system administrators can still remotely control and debug the system in the event of a system crash (Chang Col 3, lines 12-50). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the firmware remote control functionally disclosed by Chang within Zhu' system so administrators or other users can still remotely access and debug console devices even when the operating system of a console device is unavailable or has failed (Chang Col 3, lines 12-50).

In considering serial port networks, while Zhu discloses a method for managing a plurality of console devices over a network as discussed above, Zhu fails to discuss the use of a hard-wired *serial port network*. Nevertheless, the use of various network connections such as Ethernet, serial, etc. was well known in the art at the time of the invention, as evidenced by

Isfeld. Isfeld disclosed a network system that uses numerous network connections including serial port networks (Col 4, line 62 – Col 5, line 4). Thus, given the teaching of Isfeld, it would have been obvious to one of ordinary skill in the art to design the Zhu system to incorporate various network connections including serial port connections, in order to accommodate multiple networking and console devices which use different types of network interfaces and given that Zhu discloses that the system can be implemented using other computer systems and/or computer architectures (Zhu Col 7, lines 9-10).

In considering the creation of shared remote control sessions, while Zhu discloses a method for requesting a shared session of the checked console device, Zhu fails to disclose requesting a shared session of the checked console device from *a current user* of the console device. However, it was widely known in the art at the time of the invention that there are various methods for creating collaborative-shared sessions, as evidenced by Sarin. Sarin discloses a collaboration system where users request to join a collaborative-shared session and the request is approved or denied by a participant in the currently in the session (Sarin pg 38, Col 1, ¶ 1). Thus, given the teachings of Sarin, it would have been obvious to one of ordinary skill in the art to design the Zhu system to allow a user already connected to a console device to accept or reject another user's request for a shared session, in order to allow a user already connected to a console device to restrict access to the shared session on a case by case basis.

In considering claim 8, Zhu discloses the method of claim 7 wherein the console devices are computer systems (Col 2, lines 19-21).

E) Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhu et al. (U.S. Patent Number 6,691,154, hereinafter "Zhu") and Chang (U.S. Patent Number 5,444,850)and Isfeld et al. (U.S. Patent Number 5,483,640, hereinafter "Isfeld") and Thompson et al. (U.S. Patent Application Publication Number 2002/0075303, hereinafter "Thompson").

In considering claims 9-11, Zhu discloses a method for managing a plurality of console devices over a network, comprising the steps of:

- providing a plurality of console devices interconnected over a hardwired network (Col 2, lines 63-65);
- requesting a shared session of one of the console devices (Col 4, lines 5 -6);
- starting the shared session (Col 3, lines 55-58) via an addressable connection (Col 3, lines 54-55);
- accessing the console device on a peer to peer basis over the network during the shared session (Col 5, lines 42-47)
- wherein the software layer of the console device can be accessed (Col 5, lines 42-47).

In considering accessing the hardware layer of the console device without the requirement for an additional hardware dongle or signal device transmitter, Zhu fails to disclose a user is capable of accessing the hardware layer of a console device. However, it was well known in the art at the time of the invention to remotely control both the hardware and software layers of console device, as evidenced by Chang. In an analogous art, Chang discloses remotely controlling a console device where both the hardware (e.g. BIOS access or remotely sending a

signal to reboot the system) and software layers (e.g. OS files) of the console device can be accessed during device failure (see inter alia Chang Col 2, lines 43-55 and 60-67). Chang's system provides remote access through software incorporated into a system's firmware as opposed to software running on top of an operating system so that the system can be accessed even when the operating system is unable to load (see inter alia Col 4, lines 10-25). Further since Chang's remote access functionality is performed through software stored in the device's firmware the system does not require an additional hardware dongle or signal device transmitter for the remote access. In addition Chang disclosed that such device hardware layer access is beneficial since system administrators can still remotely control and debug the system in the event of a system crash (Chang Col 3, lines 12-50). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the firmware remote control functionally disclosed by Chang within Zhu' system so administrators or other users can still remotely access and debug console devices even when the operating system of a console device is unavailable or has failed (Chang Col 3, lines 12-50).

In considering hardwired serial port networks, while Zhu discloses a method for managing a plurality of console devices over a network as discussed above, specifically over an addressable IP-based network such as the internet (Col 3, lines 54-55), Zhu fails to discuss the use of a *hardwired serial port network*. However, the use of various network connections such as Ethernet, serial, etc. connected in a hybrid form was well known in the art as evidenced by Isfeld. Isfeld discloses a hybrid network system (Col 4, line 56) that uses numerous network connections including serial ports (Col 4, line 62 – Col 5, line 4). Thus, given the teaching of Isfeld, it would have been obvious to one of ordinary skill in the art to design the Zhu system to

incorporate a hybrid of network connections, including Ethernet and serial port networks, in order to accommodate multiple networking and console devices which use different types of network interfaces given that Zhu discloses that the system can be implemented using other computer systems and/or computer architectures (Zhu Col 7, lines 9-10).

In considering the creation of shared remote control sessions, while Zhu discloses a method for requesting a shared session of one of the console devices, Zhu fails to disclose *a current user* of one of the console devices inviting a new user to join a shared session of the console device. However, it is widely known in the art that there are various methods for creating collaborative-shared sessions as evidenced by Thompson. Thompson discloses a collaboration method where a user in a collaborative shared session invites other users to join the shared session (Thompson ¶115, lines 16-21). Thus, given the teachings of Thompson, it would have been obvious to one of ordinary skill in the art to design the Zhu system to allow a user already connected to a console device to invite another user into a shared session, in order to allow a user already connected to a console device to notify other users that a shared session exits and that their presence is requested.

F) Claims 12, 15-18, 20, 21-22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhu et al. (U.S. Patent Number 6,691,154, hereinafter "Zhu") and Chang (U.S. Patent Number 5,444,850) and Partridge et al. (U.S. Patent Number 6,160,819; hereinafter "Partridge").

In considering claims 12 and 20, Zhu discloses a system for managing a console device in a network, comprising:

- a system server (Remote conferencing server) (Figure 1, Component 102);
- a console device connected to system server (Figure 1, Component 106);
- a program product stored on the system server for allowing users to open a shared session and access the console device (Col 7, lines 56-65 and Col 5, lines 42-47);
- wherein the software layer of the console device can be accessed (Col 5, lines 42-47).

In considering accessing the hardware layer of the console device without the requirement for an additional hardware dongle or signal device transmitter, Zhu fails to disclose a user is capable of accessing the hardware layer of a console device. However, it was well known in the art at the time of the invention to remotely control both the hardware and software layers of console device, as evidenced by Chang. In an analogous art, Chang discloses remotely controlling a console device where both the hardware (e.g. BIOS access or remotely sending a signal to reboot the system) and software layers (e.g. OS files) of the console device can be accessed during device failure (see inter alia Chang Col 2, lines 43-55 and 60-67). Chang's system provides remote access through software incorporated into a system's firmware as opposed to software running on top of an operating system so that the system can be accessed even when the operating system is unable to load (see inter alia Col 4, lines 10-25). Further since Chang's remote access functionality is performed through software stored in the device's firmware the system does not require an additional hardware dongle or signal device transmitter for the remote access. In addition Chang disclosed that such device hardware layer access is beneficial since system administrators can still remotely control and debug the system in the event of a system crash (Chang Col 3, lines 12-50). Thus, it would have been obvious to one of

ordinary skill in the art at the time of the invention to incorporate the firmware remote control functionally disclosed by Chang within Zhu' system so administrators or other users can still remotely access and debug console devices even when the operating system of a console device is unavailable or has failed (Chang Col 3, lines 12-50).

Zhu also failed to disclose that a terminal concentrator server is connected to the system server, a multiplexer is connected to the terminal concentrator server, and the console device is connected to the multiplexer. Nonetheless it was widely known in the art at the time of the invention to connect various devices through a terminal concentrator server and multiplexer, as evidenced by Partridge. In a similar networking system, Partridge disclosed a networking system where console devices (e.g. Figure 1, Computers 102-108) are connected to a multiplexer (Figure 1, Component 112) and the multiplexer is connected to a terminal concentrator server (Figure 1, Component 114) (also see Col 5, lines 49-54). Partridge further disclosed that such a configuration allows for high speed, low latency data transmission and is especially useful in conferencing systems (Col 5, lines 56-59). Thus, given the teachings of Partridge, it would have been obvious to one of ordinary skill in the art at the time of the invention modify the system of Zhu to include a multiplexer and terminal concentrator between the console device and system server, since such a configuration reduces network latency and is especially useful in conferencing systems such as the remote control conferencing system of Zhu.

In considering claims 15 and 24, Zhu discloses that the system server and console devices are connected via an addressable connection (Col 3, lines 55-58).

In considering claims 16 and 22, Zhu discloses the systems of claims 12 and 20 wherein the console device is a computer system (Figure 1).

In considering claims 17 and 21, Zhu discloses the systems of claims 12 and 20 wherein the shared session is opened via an addressable connection (Col 3, lines 55-58).

In considering claim 18, Zhu discloses the system of claim 1, wherein the console device is accessed by the users on a peer to peer basis (Col 5, lines 42-47).

G) Claims 13-14, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhu et al. (U.S. Patent Number 6,691,154, hereinafter "Zhu") and Chang (U.S. Patent Number 5,444,850)and Partridge et al. (U.S. Patent Number 6,160,819; hereinafter "Partridge") as applied to claims 12 and 20 above, and in further view of Isfeld et al. (U.S. Patent Number 5,483,640, hereinafter "Isfeld").

In considering claims 13-14 and 23, while Zhu discloses a method for managing a plurality of console devices over a network as discussed above, Zhu fails to discuss the use of a *serial port network*. However, the use of various network connections such as Ethernet, serial, etc. is well known in the art as evidenced by Isfeld. Isfeld discloses a hybrid network system (Col 4, line 56) that uses numerous network connections including serial ports (Col 4, line 62 – Col 5, line 4). Thus, given the teaching of Isfeld, it would have been obvious to one of ordinary skill in the art to design the Zhu system to incorporate a variety of network connections, including serial port networks, in order to accommodate multiple networking and console devices which use different types of network interfaces.

H) Claims 19 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhu et al. (U.S. Patent Number 6,691,154, hereinafter "Zhu") and Chang (U.S. Patent Number 5,444,850)and Partridge et al. (U.S. Patent Number 6,160,819; hereinafter "Partridge") as applied to claims 12 and 20 above, and in further view of:

- **Isfeld et al. (U.S. Patent Number 5,483,640, hereinafter "Isfeld");**
- **Sarin et al. ("Computer-based real-time conferencing systems", hereinafter "Sarin").**
- **Thompson et al. (U.S. Patent Application Publication Number 2002/0075303, hereinafter "Thompson").**

In considering serial port networks, while Zhu discloses a method for managing a plurality of console devices over a network as discussed above, Zhu fails to discuss the use of a *serial port network*. However, the use of various network connections such as Ethernet, serial, etc. was well known in the art as evidenced by Isfeld. Isfeld discloses a hybrid network system (Col 4, line 56) that uses numerous network connections including serial ports (Col 4, line 62 – Col 5, line 4). Thus, given the teaching of Isfeld, it would have been obvious to one of ordinary skill in the art to design the hu system to incorporate a variety of network connections, including serial port networks, in order to accommodate multiple networking and console devices which use different types of network interfaces.

In considering the creation of shared remote control sessions, while Zhu discloses a method for requesting a shared session of one of the console devices (Col 10, lines 54-58), Zhu fails to disclose *a current user* of one of the console devices inviting a new user to join a shared session of the console device. However, it is widely known in the art that there are various

methods for creating collaborative-shared sessions as evidenced by Thompson. Thompson discloses a collaboration method where a user in a collaborative shared session invites other users to join the shared session (Thompson ¶115, lines 16-21). Thus, given the teachings of Thompson, it would have been obvious to one of ordinary skill in the art to design the Zhu system to allow a user already connected to a console device to invite another user into a shared session, in order to allow a user already connected to a console device to notify other users that a shared session exits and that their presence is requested.

In further considering the creation of shared remote control sessions, Zhu fails to disclose requesting a shared session of a console device from *a current user* of a console device. However, it is widely known in the art that there are various methods for creating collaborative-shared sessions as evidenced by Sarin. Sarin discloses a collaboration system where users request to join a collaborative-shared session and the request is approved or denied by a participant in the currently in the session (Sarin pg 38, Col 1, ¶ 1). Thus, given the teachings of Sarin, it would have been obvious to one of ordinary skill in the art to design the Zhu system to allow a user already connected to a console device to accept or reject another user's request for a shared session, in order to allow a user already connected to a console device to restrict access to the shared session on a case by case basis.

Therefore Zhu, Powderly, and Partridge in view of Isfeld, Sarin, and Thompson discloses a program product stored on a recordable medium for managing a plurality of console devices interconnected over a hardwired serial port network, which when executed, comprises:

- program code configured to access one of a plurality of console devices (Zhu, Col 7, lines 56-65 and Col 5, lines 42-47) on a peer to peer basis (Zhu Col 5, lines 42-47) over a hardwired serial port network (Isfeld Col 4, line 64);
- program code configured to invite a user to join a shared session of one of a plurality of console devices (Thompson ¶115, lines 16-21) interconnected over a hardwired serial port network (Isfeld Col 4, line 64);
- program code configured to request a shared session from a current user of one of a plurality of console devices (Sarin pg 38, Col 1, ¶ 1) interconnected over a hardwired serial port network (Isfeld Col 4, line 64);
- program code configured to delegate control of a console device during a shared session (Zhu, Col 6, lines 47-60);
- and program code configured to regain delegated control of a console device (Zhu, Col 6, lines 47-60) and (Sarin pg 38 Col 1, last ¶ completed in Col 2). Zhu does not explicitly state regaining delegated control however Sarin does explicitly state such delegation through a chairperson.
- wherein both the hardware and software layer of the console device can be accessed (Powderly Col 5, lines 33-43).

I) Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zhu et al. (U.S. Patent Number 6,691,154, hereinafter "Zhu"), and

- **Powderly et al. (U.S. Patent Number 6,560,641, hereinafter "Powderly");**
- **Isfeld et al. (U.S. Patent Number 5,483,640, hereinafter "Isfeld");**

- **Sarin et al. ("Computer-based real-time conferencing systems", hereinafter "Sarin").**
- **Thompson et al. (U.S. Patent Application Publication Number 2002/0075303, hereinafter "Thompson").**

Claim 26 is rejected using similar rationale as applied to claims 19 and 25.

J) Claims 1, 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paroz et al. (U.S. Patent Number 6587125, hereinafter "Paroz") and Chang (U.S. Patent Number 5,444,850) and Sarin et al. ("Computer-based real-time conferencing systems", hereinafter "Sarin").

In considering claims 1, 4, and 5 Paroz discloses a method for managing a plurality of console devices over a network, comprising the steps of:

- providing a plurality of console devices interconnected over a hardwired network (Figure 1, Component 17) (Col 7, lines 51-54, first computing devices);
- checking an availability of one of the console devices (Col 8, lines 16-18);
- requesting a shared session of the checked console device (Col 8, lines 12-15);
- starting the shared session (Col 8, lines 19-24) via an addressable connection (Col 7, lines 48-51);
- accessing the console device on a peer to peer basis over the hardwired network during the shared session (Col 7, lines 1-4).
- performing system console access of the console device (Col 8, lines 34-39),

- wherein the software layer of the console device can be accessed (Col 8, lines 34-39).

In considering accessing the hardware layer of the console device without the requirement for an additional hardware dongle or signal device transmitter, Paroz fails to disclose a user is capable of accessing the hardware layer of a console device. However, it was well known in the art at the time of the invention to remotely control both the hardware and software layers of console device, as evidenced by Chang. In an analogous art, Chang discloses remotely controlling a console device where both the hardware (e.g. BIOS access or remotely sending a signal to reboot the system) and software layers (e.g. OS files) of the console device can be accessed during device failure (see inter alia Chang Col 2, lines 43-55 and 60-67). Chang's system provides remote access through software incorporated into a system's firmware as opposed to software running on top of an operating system so that the system can be accessed even when the operating system is unable to load (see inter alia Col 4, lines 10-25). Further since Chang's remote access functionality is performed through software stored in the device's firmware the system does not require an additional hardware dongle or signal device transmitter for the remote access. In addition Chang disclosed that such device hardware layer access is beneficial since system administrators can still remotely control and debug the system in the event of a system crash (Chang Col 3, lines 12-50). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the firmware remote control functionally disclosed by Chang within Paroz' system so administrators or other users can still remotely access and debug console devices even when the operating system of a console device is unavailable or has failed (Chang Col 3, lines 12-50).

In further considering the creation of shared remote control sessions, Paroz fails to disclose requesting a shared session of a console device from *a current user* of a console device. However, it is widely known in the art that there are various methods for creating collaborative-shared sessions as evidenced by Sarin. Sarin discloses a collaboration system where users request to join a collaborative-shared session and the request is approved or denied by a participant in the currently in the session (Sarin pg 38, Col 1, ¶ 1). Thus, given the teachings of Sarin, it would have been obvious to one of ordinary skill in the art to design the Paroz system to allow a user already connected to a console device to accept or reject another user's request for a shared session, in order to allow a user already connected to a console device to restrict access to the shared session on a case by case basis.

In considering claim 3, Paroz discloses the method of claim 1, where the shared session is started from a remote location (Col 8, lines 40-42).

K) In considering claim 6, Paroz discloses the method of claim 7 wherein the console devices are computer systems (Col 8, lines 40-42).

L) Claims 2 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paroz et al. (U.S. Patent Number 6587125, hereinafter "Paroz") and Chang (U.S. Patent Number 5,444,850) and Isfeld et al. (U.S. Patent Number 5,483,640, hereinafter "Isfeld") and Sarin et al. ("Computer-based real-time conferencing systems", hereinafter "Sarin").

In considering claims 2 and 7-8, Paroz discloses a method for managing a plurality of console devices over a network, comprising the steps of:

- providing a plurality of console devices interconnected over a hardwired network (Figure 1, Component 17) (Col 7, lines 51-54, first computing devices);
- checking an availability of one of the console devices (Col 8, lines 16-18);
- requesting a shared session of the checked console device (Col 8, lines 12-15);
- starting the shared session (Col 8, lines 19-24) via an addressable connection (Col 7, lines 48-51);
- accessing the console device on a peer to peer basis over the hardwired network during the shared session (Col 7, lines 1-4).
- performing system console access of the console device (Col 8, lines 34-39),
- wherein the software layer of the console device can be accessed (Col 8, lines 34-39).

In considering accessing the hardware layer of the console device without the requirement for an additional hardware dongle or signal device transmitter, Paroz fails to disclose a user is capable of accessing the hardware layer of a console device. However, it was well known in the art at the time of the invention to remotely control both the hardware and software layers of console device, as evidenced by Chang. In an analogous art, Chang discloses remotely controlling a console device where both the hardware (e.g. BIOS access or remotely sending a signal to reboot the system) and software layers (e.g. OS files) of the console device can be accessed during device failure (see inter alia Chang Col 2, lines 43-55 and 60-67). Chang's system provides remote access through software incorporated into a system's firmware as opposed to software running on top of an operating system so that the system can be accessed even when the operating system is unable to load (see inter alia Col 4, lines 10-25). Further

since Chang's remote access functionality is performed through software stored in the device's firmware the system does not require an additional hardware dongle or signal device transmitter for the remote access. In addition Chang disclosed that such device hardware layer access is beneficial since system administrators can still remotely control and debug the system in the event of a system crash (Chang Col 3, lines 12-50). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the firmware remote control functionally disclosed by Chang within Paroz' system so administrators or other users can still remotely access and debug console devices even when the operating system of a console device is unavailable or has failed (Chang Col 3, lines 12-50).

In considering serial port networks, while Paroz discloses a method for managing a plurality of console devices over a network as discussed above, specifically over an addressable IP-based network (Col 7, lines 47-54), Paroz fails to discuss the use of a *serial port network.* However, the use of various network connections such as Ethernet, serial, etc. was well known in the art as evidenced by Isfeld. Isfeld discloses a hybrid network system (Col 4, line 56) that uses numerous network connections including serial ports (Col 4, line 62 – Col 5, line 4). Thus, given the teaching of Isfeld, it would have been obvious to one of ordinary skill in the art to design the Paroz system to incorporate a variety of network connections, including serial port networks, in order to accommodate multiple networking and console devices which use different types of network interfaces.

In further considering the creation of shared remote control sessions, Paroz fails to disclose requesting a shared session of a console device from *a current user* of a console device. However, it is widely known in the art that there are various methods for creating collaborative-

shared sessions as evidenced by Sarin. Sarin discloses a collaboration system where users request to join a collaborative-shared session and the request is approved or denied by a participant in the currently in the session (Sarin pg 38, Col 1, ¶ 1). Thus, given the teachings of Sarin, it would have been obvious to one of ordinary skill in the art to design the Paroz system to allow a user already connected to a console device to accept or reject another user's request for a shared session, in order to allow a user already connected to a console device to restrict access to the shared session on a case by case basis.

In considering claim 8, Paroz discloses the method of claim 7 wherein the console devices are computer systems (Col 8, lines 40-42).

M) Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paroz et al. (U.S. Patent Number 6587125, hereinafter "Paroz") and Chang (U.S. Patent Number 5,444,850) and Isfeld et al. (U.S. Patent Number 5,483,640, hereinafter "Isfeld") and Thompson et al. (U.S. Patent Application Publication Number 2002/0075303, hereinafter "Thompson").

In considering claims 9-11, Paroz discloses a method for managing a plurality of console devices over a network, comprising the steps of:

- providing a plurality of console devices interconnected over a hardwired network (Figure 1, Component 17) (Col 7, lines 51-54, first computing devices);
- requesting a shared session of the checked console device (Col 8, lines 12-15);
- starting the shared session (Col 8, lines 19-24) via an addressable connection (Col 7, lines 48-51);

- accessing the console device on a peer to peer basis over the hardwired network during the shared session (Col 7, lines 1-4).
- wherein the software layer of the console device can be accessed (Col 8, lines 34-39).

In considering accessing the hardware layer of the console device without the requirement for an additional hardware dongle or signal device transmitter, Paroz fails to disclose a user is capable of accessing the hardware layer of a console device. However, it was well known in the art at the time of the invention to remotely control both the hardware and software layers of console device, as evidenced by Chang. In an analogous art, Chang discloses remotely controlling a console device where both the hardware (e.g. BIOS access or remotely sending a signal to reboot the system) and software layers (e.g. OS files) of the console device can be accessed during device failure (see inter alia Chang Col 2, lines 43-55 and 60-67). Chang's system provides remote access through software incorporated into a system's firmware as opposed to software running on top of an operating system so that the system can be accessed even when the operating system is unable to load (see inter alia Col 4, lines 10-25). Further since Chang's remote access functionality is performed through software stored in the device's firmware the system does not require an additional hardware dongle or signal device transmitter for the remote access. In addition Chang disclosed that such device hardware layer access is beneficial since system administrators can still remotely control and debug the system in the event of a system crash (Chang Col 3, lines 12-50). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the firmware remote control functionally disclosed by Chang within Paroz' system so administrators or other users can still

remotely access and debug console devices even when the operating system of a console device is unavailable or has failed (Chang Col 3, lines 12-50).

In considering serial port networks, while Paroz discloses a method for managing a plurality of console devices over a network as discussed above, specifically over an addressable IP-based network (Col 7, lines 47-54), Paroz fails to discuss the use of a *serial port network*. However, the use of various network connections such as Ethernet, serial, etc. was well known in the art as evidenced by Isfeld. Isfeld discloses a hybrid network system (Col 4, line 56) that uses numerous network connections including serial ports (Col 4, line 62 – Col 5, line 4). Thus, given the teaching of Isfeld, it would have been obvious to one of ordinary skill in the art to design the Paroz system to incorporate a variety of network connections, including serial port networks, in order to accommodate multiple networking and console devices which use different types of network interfaces.

In considering the creation of shared remote control sessions, while Paroz discloses a method for requesting a shared session of one of the console devices (Col 10, lines 54-58), Paroz fails to disclose *a current user* of one of the console devices inviting a new user to join a shared session of the console device. However, it is widely known in the art that there are various methods for creating collaborative-shared sessions as evidenced by Thompson. Thompson discloses a collaboration method where a user in a collaborative shared session invites other users to join the shared session (Thompson ¶115, lines 16-21). Thus, given the teachings of Thompson, it would have been obvious to one of ordinary skill in the art to design the Paroz system to allow a user already connected to a console device to invite another user into a shared

session, in order to allow a user already connected to a console device to notify other users that a shared session exits and that their presence is requested.

N) Claims 12, 15-18, 20, 21-22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paroz et al. (U.S. Patent Number 6587125, hereinafter "Paroz") and Chang (U.S. Patent Number 5,444,850) and Partridge et al. (U.S. Patent Number 6,160,819; hereinafter "Partridge").

In considering claims 12 and 20, Paroz discloses a system for managing a console device in a network, comprising:

- a system server (web server) (Figure 1, Component 15) (Col 7, lines 47-51);
- a console device connected to system server (Figure 1, Component 17) (Col 7, lines 51-54, first computing device);
- a program product stored on the system server for allowing users to open a shared session and access the console device (mediator) (Col 7, line 64 – Col 8, line 7);
- wherein the software layer of the console device can be accessed (Col 5, lines 42-47).

In considering accessing the hardware layer of the console device without the requirement for an additional hardware dongle or signal device transmitter, Paroz fails to disclose a user is capable of accessing the hardware layer of a console device. However, it was well known in the art at the time of the invention to remotely control both the hardware and software layers of console device, as evidenced by Chang. In an analogous art, Chang discloses remotely controlling a console device where both the hardware (e.g. BIOS access or remotely

sending a signal to reboot the system) and software layers (e.g. OS files) of the console device can be accessed during device failure (see inter alia Chang Col 2, lines 43-55 and 60-67). Chang's system provides remote access through software incorporated into a system's firmware as opposed to software running on top of an operating system so that the system can be accessed even when the operating system is unable to load (see inter alia Col 4, lines 10-25). Further since Chang's remote access functionality is performed through software stored in the device's firmware the system does not require an additional hardware dongle or signal device transmitter for the remote access. In addition Chang disclosed that such device hardware layer access is beneficial since system administrators can still remotely control and debug the system in the event of a system crash (Chang Col 3, lines 12-50). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the firmware remote control functionally disclosed by Chang within Paroz' system so administrators or other users can still remotely access and debug console devices even when the operating system of a console device is unavailable or has failed (Chang Col 3, lines 12-50).

Paroz also failed to disclose that a terminal concentrator server is connected to the system server, a multiplexer is connected to the terminal concentrator server, and the console device is connected to the multiplexer. Nonetheless it was widely known in the art at the time of the invention to connect various devices through a terminal concentrator server and multiplexer, as evidenced by Partridge. In a similar networking system, Partridge disclosed a networking system where console devices (e.g. Figure 1, Computers 102-108) are connected to a multiplexer (Figure 1, Component 112) and the multiplexer is connected to a terminal concentrator server (Figure 1, Component 114) (also see Col 5, lines 49-54). Partridge further disclosed that such a

configuration allows for high speed, low latency data transmission and is especially useful in conferencing systems (Col 5, lines 56-59). Thus, given the teachings of Partridge, it would have been obvious to one of ordinary skill in the art at the time of the invention modify the system of Paroz to include a multiplexer and terminal concentrator between the console device and system server, since such a configuration reduces network latency and is especially useful in conferencing systems such as the remote control conferencing system of Paroz.

In considering claims 15 and 24, Paroz discloses that the system server and console devices are connected via an addressable connection (Col 7, line 54). Any added networking components in the system, such as a multiplexer as described above, would be connected via an addressable connection, since Paroz uses addressable connections end to end in his system (Col 7, lines 47-54).

In considering claims 16 and 22, Paroz discloses the systems of claims 12 and 20 wherein the console device is a computer system (Col 6, line 65).

In considering claims 17 and 21, Paroz discloses the systems of claims 12 and 20 wherein the shared session is opened via an addressable connection (Col 7, lines 48-51).

In considering claim 18, Paroz discloses the system of claim 1, wherein the console device is accessed by the users on a peer to peer basis (Col 7, lines 1-4).

O) Claims 13-14, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paroz et al. (U.S. Patent Number 6587125, hereinafter "Paroz") and Chang (U.S. Patent Number 5,444,850) and Partridge et al. (U.S. Patent Number 6,160,819; hereinafter

"Partridge") as applied to claims 12 and 20 above, and in further view of Isfeld et al. (U.S. Patent Number 5,483,640, hereinafter "Isfeld").

In considering claims 13-14 and 23, while Paroz discloses a method for managing a plurality of console devices over a network as discussed above, specifically over an addressable IP-based network (Col 7, lines 47-54), Paroz fails to discuss the use of a *serial port network*. However, the use of various network connections such as Ethernet, serial, etc. is well known in the art as evidenced by Isfeld. Isfeld discloses a hybrid network system (Col 4, line 56) that uses numerous network connections including serial ports (Col 4, line 62 – Col 5, line 4). Thus, given the teaching of Isfeld, it would have been obvious to one of ordinary skill in the art to design the Paroz system to incorporate a variety of network connections, including serial port networks, in order to accommodate multiple networking and console devices which use different types of network interfaces.

P) Claims 19 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paroz et al. (U.S. Patent Number 6587125, hereinafter "Paroz") and Chang (U.S. Patent Number 5,444,850) and Partridge et al. (U.S. Patent Number 6,160,819; hereinafter "Partridge") as applied to claims 12 and 20 above, and in further view of:

- **Isfeld et al. (U.S. Patent Number 5,483,640, hereinafter "Isfeld");**
- **Sarin et al. ("Computer-based real-time conferencing systems", hereinafter "Sarin").**
- **Thompson et al. (U.S. Patent Application Publication Number 2002/0075303, hereinafter "Thompson").**

In considering serial port networks, while Paroz discloses a method for managing a plurality of console devices over a network as discussed above, specifically over an addressable IP-based network (Col 7, lines 47-54), Paroz fails to discuss the use of a *serial port network*. However, the use of various network connections such as Ethernet, serial, etc. was well known in the art as evidenced by Isfeld. Isfeld discloses a hybrid network system (Col 4, line 56) that uses numerous network connections including serial ports (Col 4, line 62 – Col 5, line 4). Thus, given the teaching of Isfeld, it would have been obvious to one of ordinary skill in the art to design the Paroz system to incorporate a variety of network connections, including serial port networks, in order to accommodate multiple networking and console devices which use different types of network interfaces.

In considering the creation of shared remote control sessions, while Paroz discloses a method for requesting a shared session of one of the console devices (Col 10, lines 54-58), Paroz fails to disclose *a current user* of one of the console devices inviting a new user to join a shared session of the console device. However, it is widely known in the art that there are various methods for creating collaborative-shared sessions as evidenced by Thompson. Thompson discloses a collaboration method where a user in a collaborative shared session invites other users to join the shared session (Thompson ¶115, lines 16-21). Thus, given the teachings of Thompson, it would have been obvious to one of ordinary skill in the art to design the Paroz system to allow a user already connected to a console device to invite another user into a shared session, in order to allow a user already connected to a console device to notify other users that a shared session exits and that their presence is requested.

In further considering the creation of shared remote control sessions, Paroz fails to disclose requesting a shared session of a console device from *a current user* of a console device. However, it is widely known in the art that there are various methods for creating collaborative-shared sessions as evidenced by Sarin. Sarin discloses a collaboration system where users request to join a collaborative-shared session and the request is approved or denied by a participant in the currently in the session (Sarin pg 38, Col 1, ¶ 1). Thus, given the teachings of Sarin, it would have been obvious to one of ordinary skill in the art to design the Paroz system to allow a user already connected to a console device to accept or reject another user's request for a shared session, in order to allow a user already connected to a console device to restrict access to the shared session on a case by case basis.

Therefore Paroz, Powderly, and Partridge in view of Isfeld, Sarin, and Thompson discloses a program product stored on a recordable medium for managing a plurality of console devices interconnected over a hardwired serial port network, which when executed, comprises:

- program code configured to access one of a plurality of console devices (Paroz, mediator Col 7, line 49) on a peer to peer basis (Col 7, lines 1-4) over a hardwired serial port network (Isfeld Col 4, line 64);
- program code configured to invite a user to join a shared session of one of a plurality of console devices (Thompson ¶115, lines 16-21) interconnected over a hardwired serial port network (Isfeld Col 4, line 64);
- program code configured to request a shared session from a current user of one of a plurality of console devices (Sarin pg 38, Col 1, ¶ 1) interconnected over a hardwired serial port network (Isfeld Col 4, line 64);

- program code configured to delegate control of a console device during a shared session (Paroz, Col 10, lines 64-67);
- and program code configured to regain delegated control of a console device (Paroz, Col 10, lines 64-67) and (Sarin pg 38 Col 1, last ¶ completed in Col 2). Paroz does not explicitly state regaining delegated control however Sarin does explicitly state such delegation through a chairperson.
- wherein both the hardware and software layer of the console device can be accessed (Powderly Col 5, lines 33-43).

Q) Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Paroz et al. (U.S. Patent Number 6587125, hereinafter "Paroz"), and

- **Powderly et al. (U.S. Patent Number 6,560,641, hereinafter "Powderly");**
- **Isfeld et al. (U.S. Patent Number 5,483,640, hereinafter "Isfeld");**
- **Sarin et al. ("Computer-based real-time conferencing systems", hereinafter "Sarin").**
- **Thompson et al. (U.S. Patent Application Publication Number 2002/0075303, hereinafter "Thompson").**

Claim 26 is rejected using similar rationale as applied to claims 19 and 25.

(10) Response to Argument

In response to Applicant's arguments, the following arguments are noted:

a. Claims 1-26 comply with the enablement requirement.

b. Claims 1-26 comply with the written description requirement.

c. The limitation "wherein the method is adapted to access the console device in the case that the console device has failed" is definite and must be given patentable weight.

d. Zhu does not teach or suggest accessing the console devices on a peer to peer basis.

e. Chang's software requires the use of an additional hardware dongle.

f. Chang's system cannot access a failed console device since Chang's software loads during booting.

With regard to (a), Applicant contends that claims 1-26 comply with the enablement requirement. Examiner respectfully disagrees. Applicant states that the Examiner has misinterpreted the claim language. In particular Applicant contends that the limitation "wherein both the hardware and software layer of the console device can be accessed ***without the requirement for*** an additional hardware dongle or ***a signal device transmitter,***" (emphasis added) does not require the device to be accessed without the use of a signal device transmitter but instead requires the device to be accessed without the use of an ***additional*** signal device transmitter. Examiner disagrees and notes that Applicant's interpretation of the claims fails to follow even the most basic grammar rules of the English language.

A review of the claim language clearly shows that the term *additional* modifies only the *hardware dongle* and NOT the phrase *a single device transmitter*. This is simply the plain

meaning of the limitation as written. Applicant links the two limitations 1) *an* additional hardware dongle and 2) *a* signal device transmitter with the conjunction OR. The limitations 1 and 2 are separate and distinct from each other. Furthermore when the Examiner evaluates this claim in view of the OR conjunction for the purposes of determining patentability the claim must be interpreted two ways, 1) *wherein both the hardware and software layer can be accessed without the requirement for an additional hardware dongle* OR 2) *wherein both the hardware and software layer can be accessed without the requirement for a signal device transmitter.* When the latter interpretation (#2) is utilized the claim requires remotely accessing a device over a network without the use of any signal device transmitters. Simply put, it would be impossible to access a device remotely without the use of a signal device transmitter because otherwise there would be no exchange of data at all.

Applicant could have easily reduced the issues for appeal before the Board by modifying the claim language to read "without the requirement for an additional hardware dongle or an **additional** signal device transmitter" but choose not to do so. It is not clear why Applicant refuses to make this minor amendment since such an amendment clearly reflects Applicant's intended claim scope.

Note, in the interest of compact prosecution and for the purposes of the prior art rejections and the prior art arguments, Examiner has presumed that the limitation "wherein both the hardware and software layer can be accessed without the requirement for a signal device transmitter" should be replaced with the limitation "wherein both the hardware and software layer can be accessed without the requirement for **an additional** signal device transmitter" since Applicant has support for such a limitation as found in the specification on pg 16, lines 5-7.

With regard to (b), Examiner respectfully disagrees and incorporates the arguments from section (a) above. Applicant clearly failed to disclose remotely accessing a device over a network without the use of any signal device transmitters.

With regard to (c), Examiner has withdrawn this rejection.

With regard to (d), Applicant contends that Zhu does not teach or suggest accessing the console devices on a peer to peer basis. Examiner respectfully disagrees. Examiner agrees that Zhu does not access the console devices on a peer to peer basis in the traditional sense of the term peer to peer. However, Applicant does not utilize a peer to peer connection in the traditional sense either. Traditionally a peer-to-peer connection is formed between two client devices without an intermediary server. When an intermediary server is utilized the architecture is client-server based.

In each embodiment of Applicant's invention all connections and data required for accessing the console devices must pass through a central server. In other words Applicant uses a client-server architecture like Zhu. Refer to figure 1 of Zhu and figure 1 of the claimed invention which show the analogous architectures utilized.

Examiner has not held Applicant's use of the term peer-to-peer indefinite even though a client-server architecture is utilized in Applicant's invention since the term may be used loosely in other forms. In the instant case, Applicant's specification describes that a connection created

on a "peer to peer" basis occurs when a user remotely controls a console device as if he or she was actually sitting in front of that console device and the hierarchy is not apparent to the user (i.e. the user is not aware of the server controlling the connection) (See Applicant's specification, pg 12, lines 4-15). Zhu provides for this same functionality, see for instance Zhu Col 5, line 22 – Col 6, line 4 where each remote expert sees the unattended server's desktop and directly controls the unattended server through the remote desktop. The remote expert is unaware of the hierarchy between itself and the unattended server as he or she directly controls the unattended server solely through the remote desktop display locally at the remote expert terminal.

Examiner maintains that Applicant's representative has confused the use of the term peer-to-peer and client-server and regardless of the terminology utilized both Applicant's claimed invention and Zhu's system utilize identical architectures and function in the same capacity.

With regard to (e), Applicant contends that Chang's firmware must be installed on a workstation network interface card (NIC) or motherboard and thus constitutes an additional hardware dongle. Examiner respectfully disagrees. Chang's solution is a software solution and thus in and of itself does not require an additional hardware dongle. Furthermore Examiner maintains that at the very least the *software* added to the motherboard PROM or ROM does not constitute an additional hardware dongle since it already resides in the system. Chang describes adding a program to the PROM or ROM built onto the motherboard or system board of a workstation to allow systems to remotely control the workstation (see inter alia, Col 2, lines 37-55 and Col 4, lines 10-25). As is notoriously well known in the art, computers start their initial boot process by loading boot instructions from a PROM or ROM on the motherboard of the

computer. These instructions are commonly referred to as the BIOS or system firmware (see for instance figure 3a, describing booting the computer using the BIOS start preboot sequence). In one embodiment of Chang's system, Chang proposes including his special boot program on the PROM or ROM of the motherboard (see inter alia, Col 2, lines 37-55). Since the system already contains the PROM or ROM for the BIOS instructions and Chang's software is merely being added to this existing PROM or ROM, Chang's system does not require an additional hardware dongle.

Additionally, as an alternate argument, Applicant's entire argument is moot in view of the fact that that the limitation requiring access without "an additional hardware dongle" is not even required by the claim when the alternative OR limitation requiring access without an additional signal device transmitter is utilized. Examiner again notes that evaluating this claim in view of the OR conjunction for the purposes of determining patentability requires the claim to be interpreted two ways, 1) *wherein both the hardware and software layer can be accessed without the requirement for an additional hardware dongle* OR 2) *wherein both the hardware and software layer can be accessed without the requirement for an additional signal device transmitter*.

With regard to (f), Applicant contends that Chang's system cannot access a failed console device since Chang's software loads during booting. Examiner respectfully disagrees. Applicant's interpretation of the term *failed* is incorrect and raises serious 112 1st ¶ issues if Applicant's interpretation of the term is utilized. Applicant states with regard to Chang's system, that "the device to which access is occurring must be booting, and, as such, can not have failed"

(Appeal brief pg 11, last ¶). If this interpretation of the term *failed* were to be used (i.e. the device cannot boot), then Examiner cannot understand how Applicant's invention could possibly work without the inclusion of some other hardware device which is specifically not allowed in view of Applicant's limitation requiring no additional hardware dongles. Examiner has more reasonably interpreted a failed system to include any system that experiences some hardware or software failure. Chang clearly provides access to a failed system when this interpretation is utilized. For instance Chang allows remote access to a workstation whose local drives is damaged or allows remote access to a workstation that has crashed (see inter alia Col 3, lines 19-32). Furthermore Chang explicitly states that "the advantage of the preboot sequence of the invention is that any damage to the client workstation's boot or operating system that would prevent normal boot or cause further damage can be managed and recovered during the preboot process." Thus, Chang's system is clearly adapted to access the console device in the case that the console device has failed.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Sean Reilly
January 31, 2007

Conferees:

BUNJOB JAROENCHONWANIT
SUPERVISORY PATENT EXAMINER

RUPAL DHARIA
SUPERVISORY PATENT EXAMINER